



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,285	02/20/2004	John D. Hatlestad	279.B40US1	7615
21186 7590 12/18/2006 SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER LAYNO, CARL HERNANDZ	
			ART UNIT	PAPER NUMBER
			3766	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/783,285	Applicant(s) HATLESTAD, JOHN D.	
	Examiner Carl H. Layno	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21,23-42,44-49 and 51-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-49 and 51-55 is/are allowed.
- 6) ☒ Claim(s) 1-3,10-12,17,23,27,28,30,36,38 and 40-42 is/are rejected.
- 7) ☒ Claim(s) 4-9,13-16,18-21,24-26,29,31-35,37 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made of applicant's amendment, which was received by the Office on November 1, 2006.
2. Claims 22, 43, 50, and 56 are canceled. Claims 1-21, 23-42, 44-49, and 51-55 are active.

Drawings

3. The formal replacement drawings were received on November 1, 2006. These drawings are approved by the Examiner. Consequently, the Examiner is withdrawing the 37 CFR 1.83(a) objection, which was made against the drawings in the last Office Action.

Claim Rejections - 35 USC § 112

4. In view of applicant's identification of support in the specification for the subject matter of claim 21, the Examiner is withdrawing the 35 U.S.C 112 1st paragraph rejection, which was made against this claim in the last Office action.
5. In view of applicant's modifications to the claims and cancellation of claim 56, the Examiner is withdrawing the 35 U.S.C 112 2nd paragraph rejections, which were made against claims 7-9, 34, 48, and 52-56 in the last Office action.

Claim Rejections - 35 USC § 102

Art Unit: 3766

6. Upon further reconsideration of applicant's arguments and amendments to the claims, the Examiner is withdrawing the 35 U.S.C 102(e) and 102(b) rejections, respectively, based upon the Hall et al (US 2005/0043605) and Gord et al (US 5,876,425) patents, which were made against claims 1-11, 13, 17-20, 24, 27-29, 31, 43-46, 49, 52, and 53 in the last Office action.

7. Applicant's arguments with respect to the claims rejected by Hall et al (US 2005/0043605) and Gord et al (US 5,876,425), referred to *supra*, have been considered but are moot in view of the following new ground(s) of rejection.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 10-12, 17, 23, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Zarinetchi et al (US 6,442,434).

The Zarinetchi et al (US 6,442,434) patent describes a method and apparatus for transferring power between a power supply externally located to the body and an implanted medical device (Abstract, lines 15-18 and col.5, lines 32-36). The external device includes a “transmission module” 22 connected to a transmission coil 32 for inductively transferring power to an implantable medical device circuit 42 via coil 34.

In regard to claims 1-3, the “transmission module” automatically controls the inductive transfer of power to the implanted device via a “first control circuit, electrically coupled to the

Art Unit: 3766

primary winding [32], to regulate a load voltage across the variable load based upon information related to the variable load that is obtained via the power channel” (col.4, lines 6-10). The power would be induced/transmitted when the internal and external devices are located near each other, as shown in Fig.1, regardless of time of day.

In regard to claims 10-12, the Zarinetchi et al device may be used with a variety of devices implanted within the human body including “cardioverter/defibrillators, infusion pumps, pacemakers, cochlear implants, and the like” (col.7, line 27).

In regard to claim 17, the inductive link could conceivably be “loosely coupled”.

In regard to claim 30, the externally located “transmission module” may provide energy for a plurality of devices implanted within the body (col.5, lines 32-35).

10. Claims 1-3, 17, 23, 27, 28, 36, 38, and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Prem et al (US 5,630,836).

The Prem et al (US 5,630,836) patent describes a transcutaneous energy and information transmission apparatus (Fig.2) in communication with an implantable device (Fig.3). The transmission apparatus (Fig.2), located external to the body, includes an external coil 29, which inductively communicates a composite power and data signal 13, from a power converter circuit 4 and an external data controller 5, to an implanted device (Fig.3). The implanted device (Fig.3) includes an internal coil 44 for receiving the composite signal 13, a voltage regulator 12 for extracting power from the composite signal 13, and a signal conditioner circuit 17 for extracting data. The transmission apparatus (Fig.2) includes a current sensor 28, an over current sensor 33,

Art Unit: 3766

and a shunt detector **36** automatically control the amount of power sent to the implanted device by induction.

In regard to claims 2 and 3, to induce energy between the external and internal devices when in close proximity would be inherent, as shown in Fig.1.

In regard to claim 17, the external transmission apparatus and the implanted device could conceivably be “loosely coupled”.

In regard to claims 27 and 28, applicant’s attention is directed to bi-directional communications links **8** and **19** of Fig.1.

In regard to claims 36, 38, 41, and 42, the power received by the implanted device (Fig.3) is used to generate a **Vcc** signal **205** that powers the circuits of the implanted device including bi-directional data link circuits such as the signal conditioner circuit **17** and internal data controller **18**, the latter comprising line driver circuit **60** for transmitting signals back to the external transmission apparatus.

In regard to claims 40 and 42, applicant’s attention is directed to Fig.2, which shows both signal conditioner circuit **16** and external data controller circuit **5** that are responsible for bi-directional RF communications. Circuit **5** includes both an ASK demodulator **38** and an ASK modulator **39** for performing this task.

Allowable Subject Matter

11. Claims 4-9, 13-16, 18-21, 24-26, 29, 31-35, 37, and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 44-49 and 51-55 are allowed.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Kung (US 6,212,430) patent is cited for its pertinent teaching of a bed/mattress with built-in coils (Fig.2) for communicating with an implantable medical device **240** (Abstract) via coil **230**.

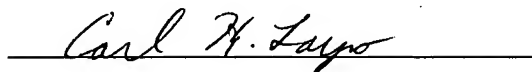
The Daly et al (US 5,741,314) patent recites a system for transmitting a composite energy and power signal to an implantable device (Fig.3).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl H. Layno whose telephone number is (571) 272-4949. The examiner can normally be reached on 9/4/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3766

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



CARL LAYNO
PRIMARY EXAMINER

CHL
12/12/2006